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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,060	12/30/2003	William T. Futral	42P17990	9124
8791 7590 06/18/2007 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER FRANKLIN, RICHARD B	
			ART UNIT 2181	PAPER NUMBER
			MAIL DATE 06/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/750,060		FUTRAL ET AL.	
	Examiner		Art Unit	
	Richard Franklin		2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-20, 23-25 and 27-35 is/are rejected.
- 7) ☒ Claim(s) 16, 21, 22 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/8/06, 6/13/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 35 are pending.

Information Disclosure Statement

2. The information disclosure statement filed 08 September 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.
3. No copy of the NPL described as "PCT Written Opinion for PCT Appln No. US2004/043676, mailed 13 July 2006 (6 pages)" has been received. Applicant is respectfully requested to submit a copy of the NPL listed above.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3, 7 – 8, 11, 15, 20, 25, 31 – 33, and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 3 and 11 recite "a vendor-specific message **conforming to support provided the bus** for the transmission of a vendor-specific message" (emphasis

Art Unit: 2181

added). It is not clear from the claim language what the vendor-specific message conforms to.

6. Claims 3 and 11 recite the limitation "**the transmission** of a vendor-specific message" in the last line of each claim (emphasis added). There is insufficient antecedent basis for this limitation in the claim.

The Examiner has interpreted the limitation to read "transmission of a vendor-specific message."

7. Claims 3 and 11 recite the limitation "a vendor-specific message" in the last line of each claim. There is insufficient antecedent basis for this limitation in the claim. It is not clear if the limitation is referring to the "vendor-specific message" recited earlier in the claim, or a new "vendor-specific message."

The Examiner has interpreted the limitation as referring to the "vendor-specific message" recited earlier in the claim.

8. Claims 7 and 8 each recite the limitation "**the version** of the integrated circuit" in line 2 of each claim (emphasis added). There is insufficient antecedent basis for this limitation in the claim.

The Examiner has interpreted the limitation as referring to "a version of the integrated circuit."

Art Unit: 2181

9. Claims 15, 20, 25 recite the limitation "***the version*** of the hardware feature" in line 2 of each claim (emphasis added). There is insufficient antecedent basis for this limitation in the claim.

The Examiner has interpreted the limitation as referring to "a version of the hardware feature."

10. Claims 31 – 33 recite the limitation "***the version*** of the hardware feature" in lines 2 – 3 of each claim (emphasis added). There is insufficient antecedent basis for this limitation in the claim.

The Examiner has interpreted the limitation as referring to "a version of the hardware feature."

11. Claim 35 is rejected because it inherits the rejection of claim 33, which claim 35 depends upon.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2181

12. Claims 1 – 6, 9 – 14, 17 – 19, 23 – 24, 27 – 30, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Application Publication No. 2005/0071531 (hereinafter Oshins).

As per claim 1, Oshins teaches an interface to a bus (Oshins; Figure 1 Item 120); and configuration logic to transmit a query message through the bus (Oshins; Figure 1 Item 150) and directed at another integrated circuit (Oshins; Figure 1 Item 130) to query for availability of a hardware feature within the other integrated circuit (Oshins; Paragraph [0053]), and to access the hardware feature within the other integrated circuit if a reply message (Oshins; Figure 1 Item 160) is received from the other integrated circuit providing an indication of availability of the hardware feature within the other integrated circuit (Oshins; Paragraph [0052] Lines 3 – 6, Paragraph [0054] Lines 2 – 6).

As per claims 2, 10, 19, and 24, Oshins also teaches wherein the interface is able to be coupled to a point-to-point bus (Oshins; Paragraph [0091] “Universal Serial Bus”) having at least one serial link across which the query message is transferred in packetized form (Oshins; Figure 1 Item 160, Paragraph [0054] Lines 2 – 6).

As per claims 3, 11, 18, and 23, Oshins also teaches wherein the bus supports the transfer of vendor-specific messages, and the query transaction is a vendor-specific query message transmitted across the bus (Oshins; Paragraph [0053]).

As per claims 4 and 12, Oshins also teaches wherein the hardware feature for which the integrated circuit queries for availability is a DMA controller (Oshins; Paragraph [0052] Lines 6 – 10).

As per claims 5, 13, and 34, Oshins also teaches wherein the configuration logic accesses the hardware feature within the other integrated circuit (Oshins; Paragraph [0054] Lines 2 – 6) using an address provided by the other integrated circuit within the reply message (Oshins; Paragraph [0061] Lines 6 – 9).

As per claims 6, 14, Oshins also teaches wherein the configuration logic accesses the hardware feature to arbitrate for an opportunity to interact with the hardware feature (Oshins; Paragraph [0052] Lines 3 – 6).

As per claim 9, Oshins teaches an interface to a bus (Oshins; Figure 1 Item 120); a hardware feature (Oshins; Figure 1 Item 140) to interact within another integrated circuit (Oshins; Figure 1 Item 110) across the bus; and configuration logic to receive a query message (Oshins; Figure 1 Item 150) through the bus and directed at the integrated circuit to query for availability of the hardware feature (Oshins; Paragraph [0053], and to selectively reply to the query message by transmitting with a reply message (Oshins; Figure 1 Item 160) providing an indication of availability of the hardware feature (Oshins; Paragraph [0054] Lines 2 – 6).

As per claim 17, Oshins teaches a bus (Oshins; Figure 1 Item 120); a device (Oshins; Figure 1 Item 110) coupled to the bus having a first configuration logic to carry out a query transaction (Oshins; Figure 1 Item 150) for the availability of a hardware feature (Oshins; Figure 1 Item 140); a system logic (Oshins; Figure 1 Item 130) having the hardware feature, and having a second configuration logic to receive the query transaction and to selectively respond with an indication of availability of the hardware feature (Oshins; Figure 1 Item 150, Paragraph [0054] Lines 2 – 6); and a processor coupled to the system logic (Oshins; Figure 3 Item 310).

As per claim 27, Oshins also teaches wherein the bus is one of a plurality of busses (Oshins; Figure 3) organized into a branching tree-like structure with the system logic at the base tree (Oshins; Figure 3 Item 320) and designated as the root complex.

As per claims 28 and 29, Oshins also teaches wherein the bus supports the transfer of a message as the query transaction to query for the hardware feature (Oshins; Figure 1 Item 150), and the message is directed to the system logic through an indication provided in the message that the message is directed to a device at the root complex (Oshins; Paragraph [0074] Lines 9 – 16).

As per claim 30, Oshins teaches transmitting a query message (Oshins; Figure 1 Item 150) by logic within a first device (Oshins; Figure 1 Item 110) across a bus (Oshins; Figure 1 Item 120) to a second device (Oshins; Figure 1 Item 130) to query for

Art Unit: 2181

the availability of a hardware feature (Oshins; Figure 1 Item 140) within the second device; receiving the query message by logic within the second device (Oshins; Paragraph [0054] Lines 1 – 2); and selectively responding by the logic within the second device to the query message by transmitting a reply message (Oshins; Figure 1 Item 160) providing an indication of availability of the hardware feature within the second device (Oshins; Paragraph [0054] Lines 2 – 6).

Allowable Subject Matter

13. Claims 7 – 8, 15, 20, 25, 31 – 33, and 35 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112 2nd Paragraph, set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims.

14. Claims 16, 21 – 22, 26, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 7 would be allowable if rewritten to overcome the rejections under 35 USC 112 2nd Paragraph and put into independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest alone or in combination ***transmitting a version number within the query message identifying the version of the integrated circuit***, as required by dependent claim 7, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 36 lines 4 – 6. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches querying another integrated circuit to determine if a hardware feature is available (see rejection of claim 1 above), but does not teach sending a version number in the query message.

Claim 8 would be allowable if rewritten to overcome the rejections under 35 USC 112 2nd Paragraph and put into independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest

alone or in combination ***transmitting a version number within the query message identifying the version of the hardware feature the integrated circuit seeks***, as required by dependent claim 8, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 35 line 22 – page 36 line 4. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches querying another integrated circuit to determine if a hardware feature is available (see rejection of claim 1 above), but does not teach sending a version number in the query message.

Claim 15 would be allowable if rewritten to overcome the rejections under 35 USC 112 2nd Paragraph and put into independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest alone or in combination ***transmitting a version number within the reply message identifying the version of the hardware feature***, as required by dependent claim 15, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 37 lines 10 – 13. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches replying to a query message if a hardware feature is available (see rejection of claim 9 above), but does not teach sending a version number in the reply message.

Claim 16 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest alone or in combination ***transmitting a version number within the reply message identifying a version of the hardware feature that the hardware feature within the integrated circuit mimics***, as required by dependent claim 16, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 37 lines 15 – 17. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches replying to a query message if a hardware feature is available (see rejection of claim 9 above), but does not teach sending a version number in the reply message.

Claims 20 and 31 would be allowable if rewritten to overcome the rejections under 35 USC 112 2nd Paragraph and put into independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest alone or in combination ***transmitting a version number within the query message indicating the version of the hardware feature that the device is able to interact with***, as required by dependent claims 20 and 31, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 35 line 22 – page 36 line 4. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches querying an integrated circuit to determine if a hardware

feature is available (see rejection of claims 17 and 30 above), but does not teach sending a version number in the query message.

Claim 21 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest alone or in combination ***receiving a version number within the query message from the first configuration logic and analyzing the version number to determine whether to respond to the query message***, as required by dependent claim 21, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 37 lines 19 – page 38 line 4. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches querying an integrated circuit to determine if a hardware feature is available (see rejection of claim 17 above), but does not teach sending a version number in the query message or analyzing a version number.

Claim 22 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest alone or in combination ***transmitting a code identifying a vendor within the query message from the first configuration logic that the second configuration logic analyzes to determine whether to respond to the query message***, as required by dependent claim 22, ***in combination with the other***

Art Unit: 2181

recited claim limitations (emphasis added). This limitation can be found in the originally filed specification at page 9 lines 6 – 8. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches querying an integrated circuit to determine if a hardware feature is available (see rejection of claim 17 above), but does not teach sending code identifying a vendor in the query message or analyzing the vendor number.

Claims 25, 33, and 35 would be allowable if rewritten to overcome the rejections under 35 USC 112 2nd Paragraph and put into independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest alone or in combination ***transmitting a version number within the reply message identifying the version of the hardware feature that the system logic possesses***, as required by dependent claims 25 and 33, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 37 lines 10 – 13. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches replying to a query message if a hardware feature is available (see rejection of claims 17 and 30 above), but does not teach sending a version number in the reply message.

Claim 24 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims because the prior art of record

fails to teach or suggest alone or in combination ***receiving a version number within the reply message from the second configuration logic and analyzing the version number to determine whether to interact with the hardware feature***, as required by dependent claim 26, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 37 lines 19 – page 38 line 4. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches querying an integrated circuit to determine if a hardware feature is available (see rejection of claim 17 above), but does not teach receiving a version number in the reply message or analyzing a version number.

Claim 32 would be allowable if rewritten to overcome the rejections under 35 USC 112 2nd Paragraph and put into independent form including all the limitations of the base claim and any intervening claims because the prior art of record fails to teach or suggest alone or in combination ***transmitting a code identifying a vendor within the query message indicating the version of the hardware feature that the first device seeks to interact with***, as required by dependent claim 32, ***in combination with the other recited claim limitations*** (emphasis added). This limitation can be found in the originally filed specification at page 35 line 33 – page 36 line 4. The prior art of record, US Patent Application Publication No. 2005/0071531 (hereinafter Oshins), teaches querying an integrated circuit to determine if a hardware feature is available (see

Art Unit: 2181

rejection of claim 30 above), but does not teach sending a code identifying a vendor in the query message.

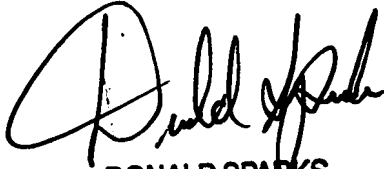
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Franklin whose telephone number is (571) 272-0669. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2181


DONALD SPARKS
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